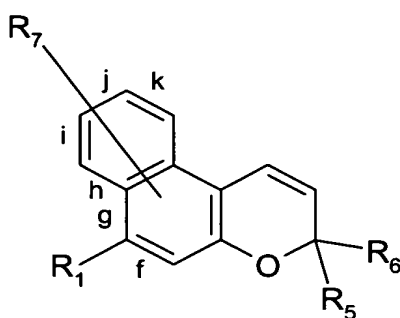
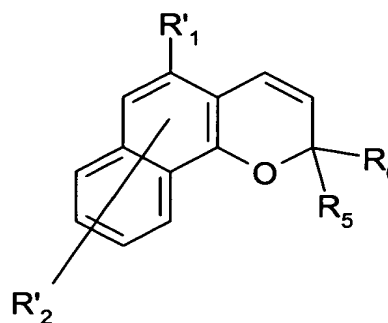


CLAIMS

1. A cosmetic composition comprising, in a physiologically acceptable medium, at least two dyes, including at least one photochromic dye, wherein the photochromic dye has a difference in hue ΔE at least equal to 5 and is at least one naphthopyran derivative of the 2H-naphtho[2,1-b]pyran type of formula (I) or the 3H-naphtho[2,1-b]pyran type of formula (II):



(I)



(II)

in which:

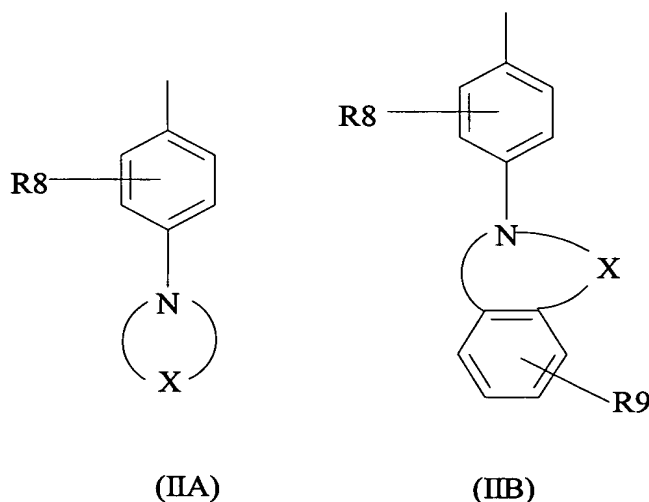
- 10 - R_1 represents:
- (i) a hydrogen atom;
- (ii) a linear, branched or cyclic, saturated or unsaturated hydrocarbon-based group containing from 1 to 30 carbon atoms, optionally comprising 1 to 5 hetero atoms selected from the group consisting of N, O, S, Si and P, and/or optionally halogenated or
- 15 perhalogenated;
- (iii) a hydrocarbon-based ring formed with one of the bonds "f" or "gh" and the radical R_7 ; or
- (iv) a group selected from the group consisting of $-COOR_4$, $-C(O)NR_2R_3$, $-NR_2R_3$, $-OR_4$ and $-SR_4$, in which:
- 20 - R_2 and R_3 either represent, independently of each other, a linear, branched or cyclic, saturated or unsaturated hydrocarbon-based group containing 1 to 20 carbon atoms, optionally comprising 1 to 5 hetero atoms selected from the group consisting of N, O, S, Si and P,

or, taken together with the nitrogen atom to which they are attached, form a saturated or unsaturated hydrocarbon-based heterocycle containing 3 to 10 carbon atoms and optionally 1 to 5 other hetero atoms selected from the group consisting of N, O, S, Si and P, the ring optionally being substituted with at least one linear, branched or cyclic, saturated or unsaturated hydrocarbon-based radical containing 1 to 20 carbon atoms, optionally comprising 1 to 5 hetero atoms selected from the group consisting of N, O, S, Si and P;

- R₄ represents a linear, branched or cyclic, saturated or unsaturated hydrocarbon-based group containing 1 to 20 carbon atoms, which is optionally halogenated or perhalogenated and/or optionally comprising 1 to 5 hetero atoms selected from the group consisting of N, O, S, Si and P;

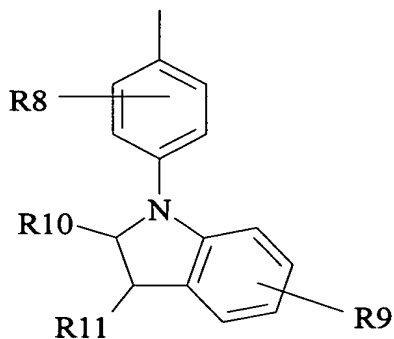
- R₅ and R₆ represent, independently of each other, a group selected from the group consisting of:

- (i) the saturated cyclic aminoaryl groups of formula (IIA) or (IIB):



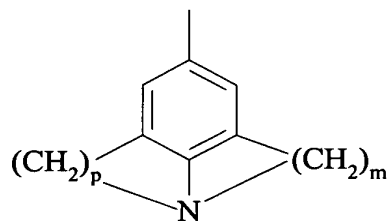
in which the ring comprising N and X is a saturated ring containing in total 3 to 30 atoms including the nitrogen, the remainder being carbon atoms and/or hetero atoms selected from the group consisting of O, S, Si and P and/or groups selected from the group consisting of -NH and -NR with R representing a linear, branched or cyclic, saturated or unsaturated hydrocarbon-based radical containing 1 to 20 carbon atoms, optionally comprising 1 to 5 hetero atoms selected from the group consisting of N, O, S, Si and P;

- (ii) the indolinoaryl groups of formula (III):



(III)

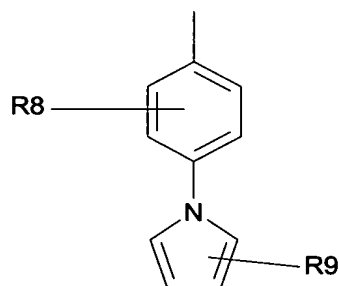
in which R_{10} and R_{11} represent, independently of each other, a group selected from the group consisting of (i) linear, branched or cyclic, saturated or unsaturated hydrocarbon-based groups containing 1 to 30 carbon atoms, optionally comprising 1 to 5
 5 hetero atoms selected from the group consisting of N, O, S, Si and P, and/or optionally halogenated or perhalogenated; (ii) halogen atoms; (iii) -CN (nitrile), -COOH (carboxylate) or -NO₂ (nitro) groups; (iv) a hydrogen atom; (v) a group selected from the group consisting of -C(O)NR₂R₃, -NR₂R₃, -OR₄ and -SR₄ with R₂, R₃ and R₄ having the meanings given above; (vi) the radicals R_{10} and R_{11} together possibly forming a saturated
 10 or unsaturated hydrocarbon-based ring containing in total 5 to 8 atoms (including the atoms of the indoline ring), the atoms being selected from the group consisting of C, O, S and/or NR with R representing H or a linear, branched or cyclic, saturated or unsaturated hydrocarbon-based radical containing 1 to 20 carbon atoms, optionally comprising 1 to 5 hetero atoms selected from the group consisting of N, O, S, Si and P,
 15 - (iii) the groups of formula (IV):



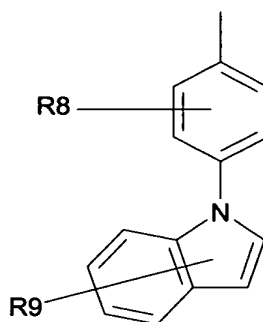
(IV)

in which m and p are, independently of each other, integers ranging from 2 to
 5;

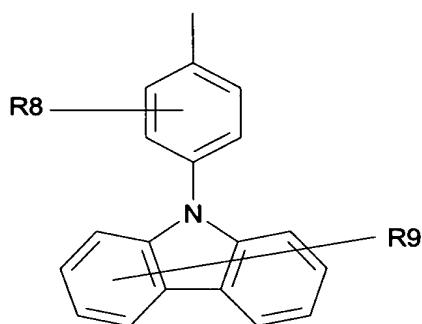
- (iv) the unsaturated cyclic aminoaryl groups of formula (VA), (VB) or (VC):



(VA)



(VB)



(VC)

5 in which R₈ and R₉ represent, independently of each other, a group selected from the group consisting of (i) linear, branched or cyclic, saturated or unsaturated hydrocarbon-based groups containing 1 to 30 carbon atoms, optionally comprising 1 to 5 hetero atoms selected from the group consisting of N, O, S, Si and P, and/or optionally halogenated or perhalogenated; (ii) halogen atoms; (iii) -CN (nitrile), -COOH
10 (carboxylate) or -NO₂ (nitro) groups; (iv) a hydrogen atom; (v) a group selected from the group consisting of -C(O)NR₂R₃, -NR₂R₃, -OR₄ and -SR₄ with R₂, R₃ and R₄ having the meanings given above;

- (v) a linear, branched or cyclic, saturated or unsaturated hydrocarbon-based group containing 1 to 30 carbon atoms, optionally comprising 1 to 5 hetero atoms selected
15 from the group consisting of N, O, S, Si and P; and especially a group selected from the group consisting of -C₆H₄-CONR₂R₃, -C₆H₄-NR₂R₃ and -C₆H₄-OR₄ with R₂, R₃ and R₄ having the meanings given above;

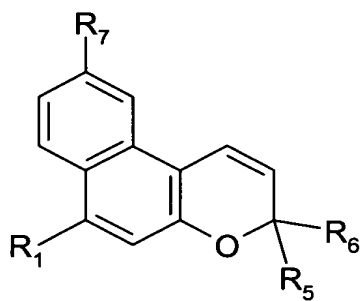
- R₇ represents a group selected from the group consisting of:
 - (i) linear, branched or cyclic, saturated or unsaturated hydrocarbon-based groups containing 1 to 30 carbon atoms, optionally comprising 1 to 5 hetero atoms selected from the group consisting of N, O, S, Si and P, and/or optionally halogenated or perhalogenated;
 - (ii) halogen atoms;
 - (iii) -CN (nitrile), -COOH (carboxylate), -NO₂ (nitro), -N=N- (azo), =NH (imino) or -CONH₂ (amide) groups;
 - (iv) a hydrogen atom;
 - (v) a group selected from the group consisting of -C(O)NR₂R₃, -NR₂R₃, -OR₄ and -SR₄ with R₂, R₃ and R₄ having the meanings given above;
 - (vi) the radical R₇ also possibly forming, with one of the bonds “i”, “j”, “k” or “g,h” taken with the radical R₁, or “f” taken with the radical R₁, a saturated hydrocarbon-based ring containing in total 3 to 8 carbon atoms, optionally comprising 1 to 5 hetero atoms selected from the group consisting of N, O, S, Si and P;
- R'₁ represents a group selected from the group consisting of:
 - (i) a hydrogen atom;
 - (ii) a linear, branched or cyclic, saturated or unsaturated hydrocarbon-based group containing 1 to 30 carbon atoms, optionally comprising 1 to 5 hetero atoms selected from the group consisting of N, O, S, Si and P, and/or optionally halogenated or perhalogenated;
 - (iii) a group selected from the group consisting of -C(O)NR₂R₃, -NR₂R₃, -OR₄ and -SR₄, with R₂, R₃ and R₄ having the meanings given above;
- R'₂ represents a group selected from the group consisting of:
 - (i) linear, branched or cyclic, saturated or unsaturated hydrocarbon-based groups containing 1 to 30 carbon atoms, optionally comprising 1 to 5 hetero atoms selected from the group consisting of N, O, S, Si and P, and/or optionally halogenated or perhalogenated;
 - (ii) halogen atoms;
 - (iii) -CN (nitrile), -COOH (carboxylate), -NO₂ (nitro), -N=N- (azo), =NH (imino) or -CONH₂ (amide) groups;
 - (iv) a hydrogen atom;

- (v) a group selected from the group consisting of $-C(O)NR_2R_3$, $-NR_2R_3$, $-OR_4$ and $-SR_4$, with R_2 , R_3 and R_4 having the meanings given above.

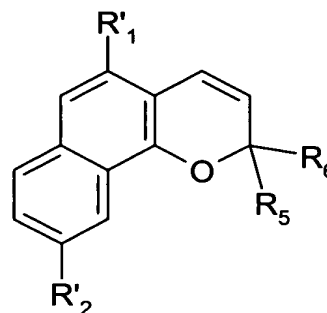
2. The composition according to claim 1, wherein the photochromic dye is present in an amount that is effective to give the composition a dynamic effect in terms of color and radiance.

3. The composition according to claim 1, wherein the naphthopyran derivative is present in the composition in a dissolved form.

4. The composition according to claim 1, wherein the naphthopyran derivative corresponds to formula (Ia) or (IIa) below where variables $R_{\#}$ and $R'_{\#}$ are as defined in Claim 1:



(Ia)



(IIa)

5. The composition according to claim 1, wherein R_1 represents a hydrogen atom; a hydrocarbon-based ring with one of the bonds “f” or “gh” and the radical R_7 ; or a group selected from the group consisting of $-COOR_4$, $-NR_2R_3$, $-OR_4$ and $-SR_4$, in which:

- R_2 and R_3 either may represent, independently of each other, a linear, branched or cyclic, saturated or unsaturated hydrocarbon-based group containing 1 to 20, carbon atoms, optionally comprising 1 to 5 hetero atoms selected from the group consisting of N, O, S, Si and P,

or, taken together with the nitrogen atom to which they are attached, may form a saturated or unsaturated hydrocarbon-based heterocycle containing 3 to 10 carbon atoms and optionally 1 to 5 other hetero atoms selected from the group consisting of N, O, S, Si and P, the ring optionally being substituted with at least one linear, branched or cyclic, saturated or unsaturated hydrocarbon-based radical containing 1 to 20 carbon atoms,

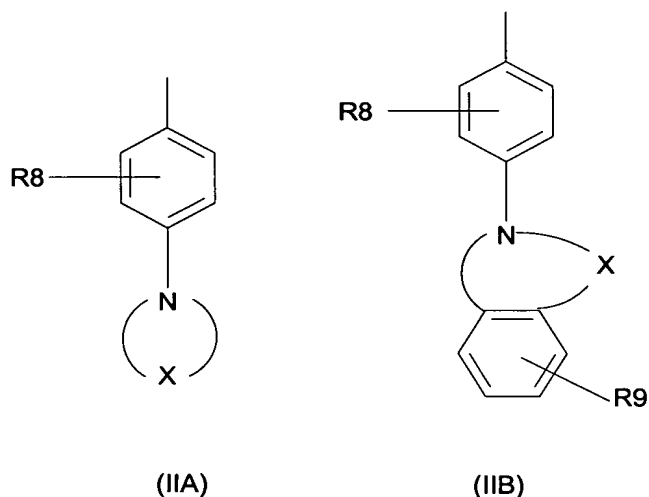
optionally comprising 1 to 5 hetero atoms selected from the group consisting of N, O, S, Si and P;

- R_4 may represent a linear, branched or cyclic, saturated or unsaturated hydrocarbon-based group containing 1 to 20 carbon atoms, optionally halogenated or perhalogenated and/or optionally comprising 1 to 5 hetero atoms selected from the group consisting of N, O, S, Si and P;

and/or

- R_5 and R_6 may represent, independently of each other, a group selected from the group consisting of:

- the saturated cyclic aminoaryl groups of formula (IIA) or (IIB):

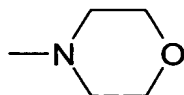


- in which the ring comprising N and X is a saturated ring which contains in total 3 to 30 including nitrogen, the rest being carbon atoms and/or hetero atoms selected from the group consisting of O, S, Si and P and/or groups selected from the group consisting of -NH and -NR with R representing a linear, branched or cyclic, saturated or unsaturated hydrocarbon-based radical containing 1 to 20 carbon atoms, optionally comprising 1 to 5 hetero atoms selected from the group consisting of N, O, S, Si and P;

- a linear, branched or cyclic, saturated or unsaturated hydrocarbon-based group containing 1 to 30 carbon atoms, optionally comprising 1 to 5 hetero atoms selected from the group consisting of N, O, S, Si and P; and especially a group selected from the group consisting of $-C_6H_4-CONR_2R_3$, $-C_6H_4-NR_2R_3$ and $-C_6H_4-OR_4$ with R_2 , R_3 and R_4 having the meanings given above.

6. The composition according to claim 1, wherein the photochromic dye corresponds to formula (I) for which:

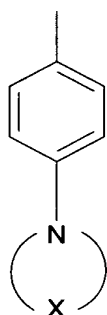
- R_1 represents hydrogen; or a group $-COOR$ with R being a saturated hydrocarbon-based radical containing 1 to 12 carbon atoms, or a group



5

and/or

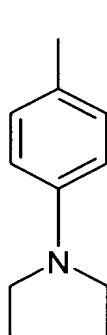
- R_5 and R_6 represent, independently of each other, either (i) a group of formula (IIA):



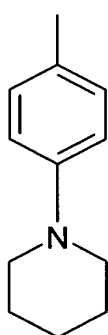
(IIA)

10

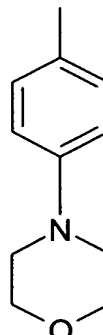
in which the ring comprising N and X is a saturated ring containing in total 4 to 7 atoms, including nitrogen, and especially 3 to 5 carbon atoms and 0 or 1 oxygen atom; and in particular a group of formula:



or



or



or (ii) a linear, branched or cyclic, saturated or unsaturated hydrocarbon-based group containing 5 to 14 carbon atoms, optionally comprising 1 or 2 hetero atoms selected from the group consisting of N, O or S;

15

and/or

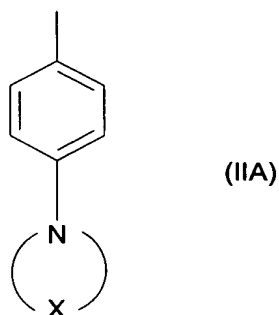
R_7 represents a hydrogen atom or a group $-NR_2R_3$, with R_2 and R_3 representing, independently of each other, a linear or branched, saturated hydrocarbon-based group containing 1 to 12 carbon atoms.

7. The composition according to claim 1, wherein the photochromic dye corresponds to formula (II) for which:

- R'_1 represents hydrogen or a group $-COOR$ with R being a saturated hydrocarbon-based radical containing 1 to 12 carbon atoms;

and/or

- R_5 and R_6 represent, independently of each other, either (i) a group of formula (IIA):



in which the ring comprising N and X is a saturated ring containing in total 4 to 7 atoms, including nitrogen,

or (ii) a linear, branched or cyclic, saturated or unsaturated hydrocarbon-based group containing 5 to 14 carbon atoms, optionally comprising 1 or 2 hetero atoms selected from the group consisting of N , O and S ;

and/or

- R'_2 represents hydrogen or a group $-NR'R''$, with R' and R'' , which may be identical or different, representing a linear or branched, saturated hydrocarbon-based group containing 1 to 12 carbon atoms.

8. The composition according to claim 1, wherein the photochromic dye is selected from the group consisting of :

- 3,3-di(4-methoxyphenyl)-6-morpholino-3H-naphtho[2,1-b]pyran
- 3-phenyl-3-(4-morpholinophenyl)-6-morpholino-3H-naphtho[2,1-b]pyran
- 3-phenyl-3-(4-piperidinophenyl)-6-morpholino-3H-naphtho[2,1-b]pyran
- 3-phenyl-3-(4-piperidinophenyl)-6-carboxymethyl-9-N-dimethyl-3H-naphtho[2,1-b]pyran

- 2-phenyl-2-(4-piperidinophenyl)-5-carboxymethyl-9-N-dimethyl-2H-naphtho[1,2-b]pyran, and mixtures thereof.

9. The composition according to claim 1, comprising from 0.001% to 20% by weight of the photochromic dye, relative to the total weight of the cosmetic composition.

10. The composition according to claim 1, wherein the photochromic dye comprises at least two different naphthopyran derivatives.

11. The composition according to claim 1, combining with the photochromic dye at least a second dye.

12. The composition according to claim 11, wherein the second dye is selected from the group consisting of the group consisting of goniochromatic coloring agents, water-soluble or liposoluble monochromatic dyes, pigments, reflective particles and nacs, and mixtures thereof.

13. The composition according to claim 1, comprising, as a second dye, at least one goniochromatic coloring agent.

14. The composition according to claim 13, comprising from 0.1% to 60%, by weight of the goniochromatic coloring agent, relative to the total weight of the composition.

15. The composition according to claim 13, wherein the goniochromatic coloring agent is selected from the group consisting of multilayer interference structures and liquid-crystal coloring agents.

16. The composition according to claim 15, wherein the goniochromatic coloring agent of multilayer interference structure comprises at least two layers, each layer, optionally independently of the other layer(s), being made from at least one material selected from the group consisting of the group consisting of the following materials: MgF₂, CeF₃, ZnS, ZnSe, Si, SiO₂, Ge, Te, Fe₂O₃, Pt, Va, Al₂O₃, MgO, Y₂O₃, S₂O₃, SiO, HfO₂, ZrO₂, CeO₂, Nb₂O₅, Ta₂O₅, TiO₂, Ag, Al, Au, Cu, Rb, Ti, Ta, W, Zn, MoS₂, cryolite, alloys and polymers, and combinations thereof.

17. The composition according to claim 15, comprising a liquid-crystal coloring agent obtained by polymerization of a monomer mixture comprising:

- a) at least a first monomer A of formula (I) Y1-A1-M1-A2-Y2
in which

- i) Y1 and Y2, which may be identical or different, represent an acrylate or methacrylate group;

- ii) A1 and A2, which may be identical or different, represent a group of formula $-C_nH_{2n}-$, in which n is an integer ranging from 1 to 20;

5 - iii) M1 denotes a group of general formula (I') $-R_1-X_1-R_2-X_2-R_3-X_3-R_4-$, in which R_1 and R_4 denote $-O-$, and R_2 and R_3 denote $-COO-$,

and X_1 , X_2 and X_3 are a 1,4-phenylene group, the carbonyl group $-CO-$ of R_2 and of R_3 , respectively, being linked to the group X_1 or X_3 , respectively,

and

10 - b) at least a second monomer B, which is chiral, of formula (II) $V1-W1-Z-W2-V2$, in which

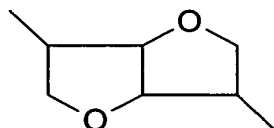
- i) V1 denotes an acrylate or methacrylate group, and V2 denotes a C_1-C_{20} alkyl, C_1-C_{20} alkoxy, (C_1-C_{20}) alkoxycarbonyl or $-OH$ group,;

- ii) W1 represents a divalent group of formula $-X'1-CO-O-$,

15 W2 represents a divalent group of formula $-O-CO-X'1-$,

in which $X'1$ denotes a 1,4-phenylene group,

and Z denotes a chiral group containing two bonds, derived from the dianhydrohexite group, in particular a divalent radical of formula:



20 18. Composition according to claim 17, wherein the liquid-crystal coloring agent is obtained from a monomer mixture comprising from 70% to 99% by weight of monomer A and from 1% to 30% by weight of monomer B, relative to the total weight of monomer A and of monomer B.

25 19. The composition according to claim 15, comprising a liquid-crystal coloring agent present in a content ranging from 0.01% to 99% by weight, relative to the total weight of the composition.

20. The composition according to claim 1, comprising, as a second dye, from 0.001% to 15% by weight of at least one liposoluble or water-soluble dye relative to the total weight of the composition.

21. The composition according to claim 1, comprising, as a second dye, from 0.01% to 25% by weight of at least one pigment relative to the total weight of the composition.

22. The composition according to claim 1, comprising, as a second dye, from 5 0.01% to 20% by weight of nactes relative to the total weight of the composition.

23. The composition according to claim 1, comprising, as a second dye, from 0.1% to 20% of reflective particles relative to the total weight of the composition.

24. The composition according to claim 1, further comprising at least one oily phase.

10 25. The composition according to claim 24, wherein the oily phase comprises one or more polar or apolar, volatile or non-volatile oils.

26. The composition according to claim 24, wherein the oily phase comprises from 5% to 100% by weight, of polar oils relative to the total weight of the oily phase.

15 27. The composition according to claim 24, wherein the oily phase comprises from 5% to 100% by weight, of apolar oils relative to the total weight of the oily phase.

28. The composition according to claims 24, wherein the oils may be selected from the group consisting of volatile or non-volatile oils of animal, plant, mineral or synthetic origin, and mixtures thereof.

20 29. The composition according to claim 28, wherein the oils are selected from the group consisting of animal or plant oils, synthetic esters and ethers, especially of fatty acids, fatty alcohols, linear or branched hydrocarbons of mineral or synthetic origin, and glycerides, and mixtures thereof.

30. The composition according to claims 24, wherein the oily phase is such that the photochromic dye(s) is(are) soluble or dispersible therein.

25 31. The composition according to claims 24, wherein comprising from 1% to 99% by weight, of oily phase relative to the total weight of the composition.

32. The composition according to claim 1, comprising from 0.1% to 50% by weight, of a fatty substance other than an oil, relative to the total weight of the composition.

30 33. The composition according to claim 1, wherein said composition is anhydrous.

34. The composition according to claim 1, further comprising at least one aqueous phase.

35. The composition according to claim 34, wherein the aqueous phase comprises from 0.1% to 14% by weight of a C₂-C₆ monoalcohol, relative to the total weight of the aqueous phase.

36. The composition according to claim 1, further comprising at least one surfactant.

37. The composition according to claim 36, wherein said surfactant is present in an amount from 0.01% to 30% by weight relative to the total weight of the composition.

38. The composition according to claim 1, further comprising at least one thickener.

39. The composition according to claim 38, wherein said thickener is present in an amount from 0.01% to 6% by weight relative to the total weight of the composition.

40. The composition according to claim 1, further comprising at least one film-forming polymer.

41. The composition according to claim 40, wherein said film-forming polymer is present in an amount from 0.01% to 4% by weight relative to the total weight of the composition.

42. The composition according to claim 1, further comprising at least one filler.

43. The composition according to claim 42, wherein said filler is present in a proportion of from 0.01% to 60% by weight and in particular from 3% to 10% by weight relative to the total weight of the composition.

44. A process for making up the skin, the lips and/or the integuments, comprising applying the composition according to claim 1 to the skin, the lips and/or the integuments.

45. The process of Claim 44, comprising applying said composition to the skin.

46. The process according to claim 45, wherein the photochromic dye is a naphthopyran.